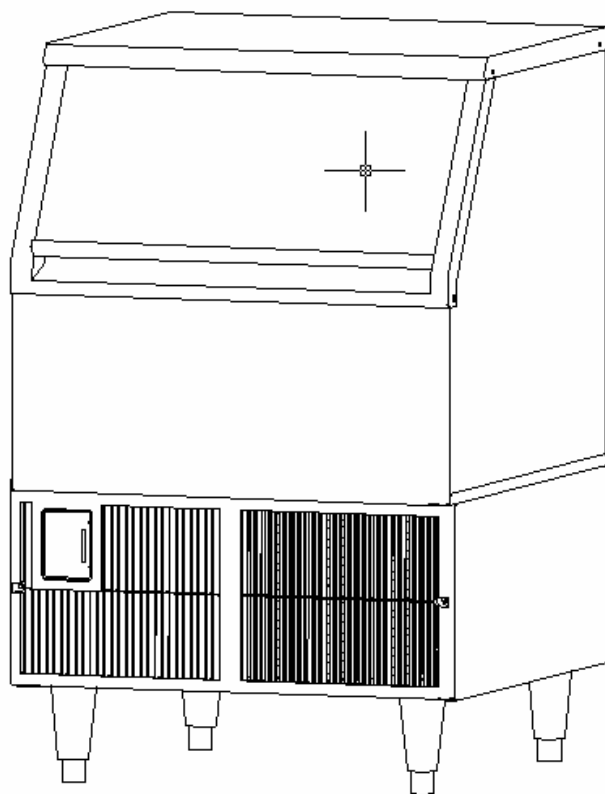


# **Automatic Ice Maker**

## **Service Manual**



MODEL IM-2842

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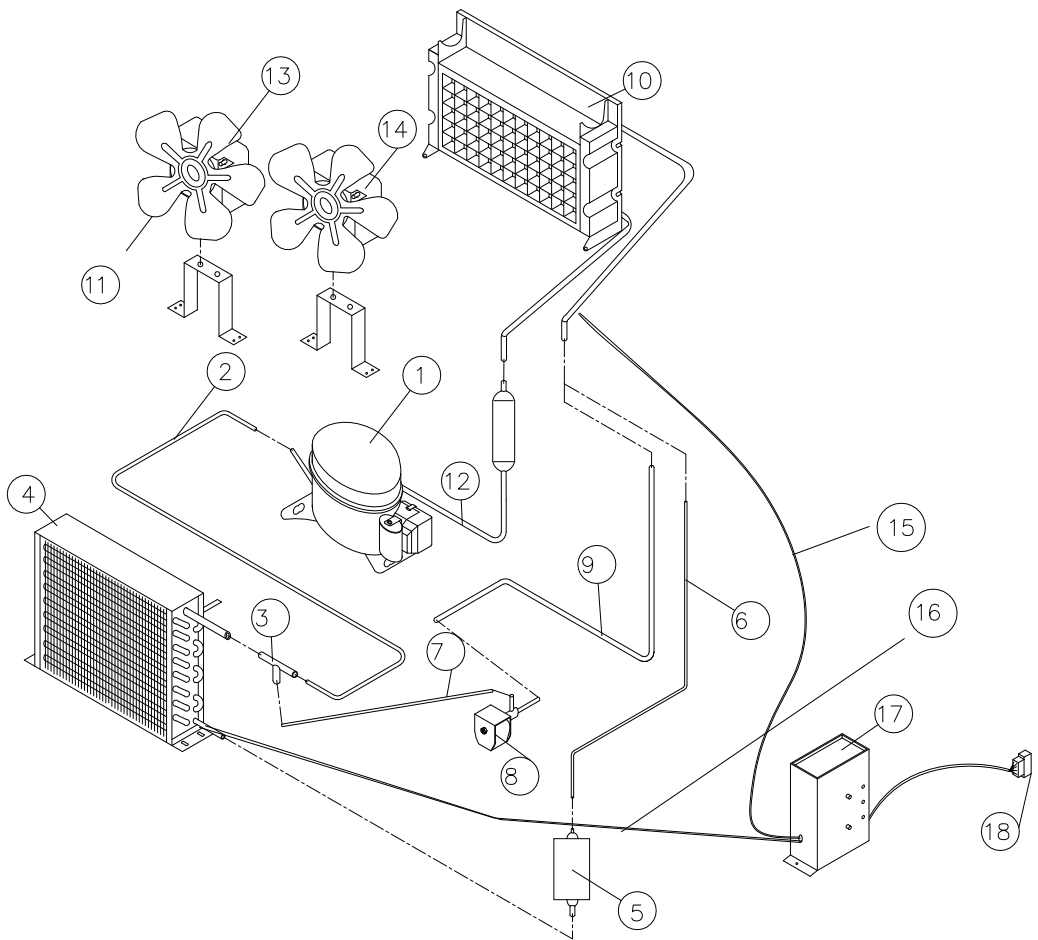
**IMPORTANT:** The service manual is based on the user manual. Before servicing, please read user manual and service manual carefully. The service operation should be implemented by qualified technician.

## How the Icemaker Works

Please refer to the section “**Operation** of user manual” from page 12 to 14 . It describes clear how the icemaker makes ice and uses the water.

There are 3 systems including Cooling System, Water System and Wiring Connection and Controller.

### Cooling System



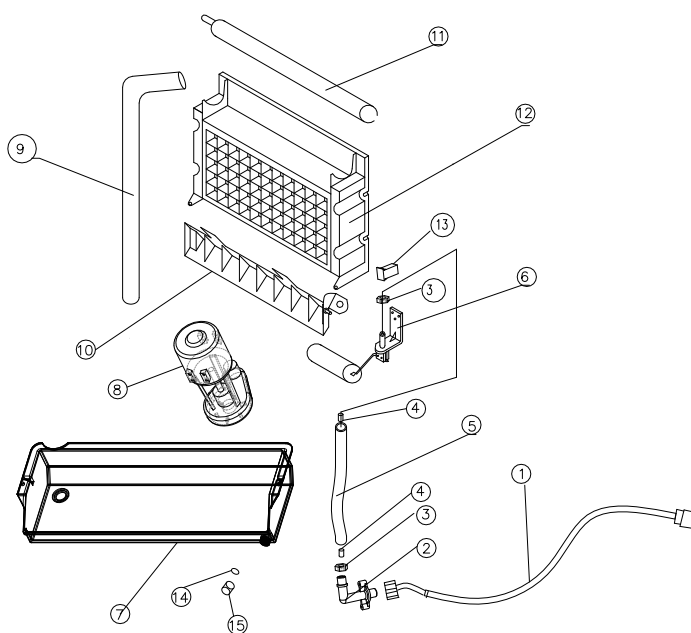
| ITEM NO | CODE       | DESCRIPTION                          |
|---------|------------|--------------------------------------|
| 1       | 1858420900 | Compressor                           |
| 2       | 1861512102 | Discharge tube                       |
| 3       | 1861530100 | Cu three ways                        |
| 4       | 1880013104 | Condenser                            |
| 5       | 1880008201 | Drier and filter                     |
| 6       | 1805000600 | Capillary tube                       |
| 7       | 1861502502 | Connection tube                      |
| 8       | 1854701800 | Hot gas valve                        |
| 9       | 1861501701 | Hot gas tube                         |
| 10      | 1880024700 | Evaporator (Ice Mold)                |
| 11      | 1860700100 | Fan blade( $\phi$ 200X28° )          |
| 12      | 1880020202 | suction pipe                         |
| 13      | 1858200601 | Motor 5W                             |
| 14      | 1858201300 | Motor 10W                            |
| 15      | 1851700200 | Temperature sensor of the evaporator |
| 16      | 1851700802 | Temperature sensor of the condenser  |
| 17      | 1854205900 | Control box                          |

**During the ice-making stage**, the hot gas solenoid valve is **closed**. The hot refrigerant gas is pumped out off compressor to condenser. The hot gas is cooled by fan forced air to warm liquid refrigerant after passing through the condenser. The drier & filter reduces the possible dirty and humidity in the refrigerant. The evaporator is cooled by the refrigerant. So ice can formed on the evaporator during water is sprayed to the evaporator. Low pressure refrigerant gas may go back compressor from the evaporator.

**During the ice harvest stage**, the solenoid valve is **open**. The hot refrigerant gas is pumped out off compressor to evaporator through hot gas valve. As the hot gas is not cooled by the condenser, the refrigerant makes the evaporator (ice mold) warm. So some ice touching the evaporator is thawed. All of ice can slide down to the ice storage bin.

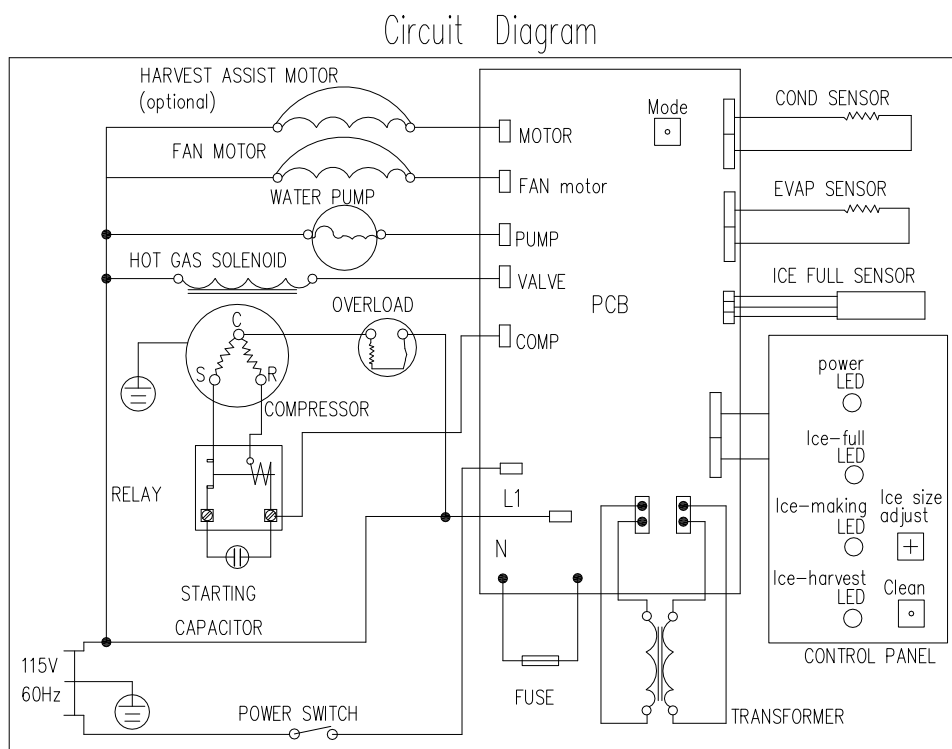
## Water System

When the water supply pipe is connected with the main water supply, water will fill the water trough through the floater valve till enough water inside water trough makes floater valve close. During ice-making stage, water is pumped from the water trough to the water distribution tube. The distributed water flow the surface of evaporator. Most parts of water go back water trough. Some water is frozen on the evaporator step by step. The floater valve will open and fresh water is recruited at any moment.



| ITEM NO | CODE                     | DESCRIPTION                  |
|---------|--------------------------|------------------------------|
| 1       | 1811306100               | Water supply tube            |
| 2       | 1864526301               | <b>Water inlet connector</b> |
| 3       | 1864529100               | Nut of water inlet tube      |
| 4       | 1864515100               | Supporting tube              |
| 5       | 1811206006               | Water pump inlet tube        |
| 6       | 1880001701               | Floater valve                |
| 7       | 1864802002               | Water trough                 |
| 8       | 1858904400               | Water pump                   |
| 9       | 1811330102               | Water pump outlet tube       |
| 10      | 1861701802               | Ice slideway                 |
| 11      | 1864550602<br>1864550702 | Water distribution tube      |
| 12      | 1880024700               | Evaporator (Ice Mold)        |
| 13      | 1854005700               | Magnetism switch             |
| 14      | 1813406016               | <b>Gasket</b>                |
| 15      | 1864608400               | Screw cap                    |

## Wiring Connection :



## Circuit Description

### 1. Electrify Status For The First Time

As the icemaker is properly installed. switch on the water tap, let the water trough full (reach on the level), then turn the Power switch to the ON position on the panel. The icemaker will start working automatically

In this status, the time is fixed about 3 minutes. This function is also helpful to protect the compressor avoiding restart within 3 minutes.

At this status, the **White, Green, Yellow and Red** LEDs are light together.

### 2. Ice-making Status

The compressor, motor fan and pump are powered on. The hot gas solenoid valve is powered off.

When this green LED is lit, the unit is working in the ice making mode controlled by a temperature probe on the evaporator. When the green LED is flashing, the unit is working in the ice making mode controlled by a fixed timer.

The fan motor is also controlled by a condenser sensor. When the ambient temperature is too lower, the motor fan stop working for good condensation to refrigerant.

### 3. Ice Harvest Status

The pump is powered off. The hot gas solenoid valve, compressor and motor fan is powered on.

The fan motor is also controlled by a condenser sensor. When the ambient temperature is too lower, the motor fan stop working for good condensation to refrigerant.

The Yellow LED indicates the ice harvest status.

#### 4. Ice Full Status And Cold Preservation Stage

If the ice bin is fulfilled with ice, the machine stops making ice and turn to cold preservation stage automatically.

In this status, the compressor works regularly to keep the lower temperature for lower ice melting. The rest of the electric components are powered off. The WHITE LED indicates the ice full status and the GREEN AND YELLOW LEDs together indicates the cold preservation status .

#### 5. Cleaning Status

Turn the machine CLEAN SWITCH at the CLEAN in 3 minutes after the POWER SWITCH is turned on, the machine turn to Cleaning Status. At this status, the pump is powered on. Compressor, motor fan and the hot gas solenoid valve are powered off. The GREEN and YOLLOW LEDs are flashing together. To stop the cleaning mode, turn the machine “OFF” at the Power switch or it will turned off automatically after 30 minutes.

NOTE: In order to start the Clean Status the power switch must be on. The CLEAN switch must be turned in 3 before the COMPRESSOR starts. To clean, it is no use turning the CLEAN switch when machine is in ice-making status or ice-harvest status.

#### Controller box:

Instructions for LEDs and buttons:

##### 1. White LED: Ice full indicator light.

When this LED is lit, the ice storage bin is full of ice or there is something between the ice-full sensor and the evaporator. The unit will stop making ice. When ice cubes are taken out of the ice storage bin making the ice-full probe free, the white LED will keep flashing for 3 minutes. Then the unit will restart and return to the ice making mode.

##### 2. Green LED: Ice making indicator light.

When this LED is lit, the unit is working in the ice making mode controlled by a temperature probe on the evaporator. When the green LED is flashing, the unit is working in the ice making mode controlled by a fixed timer.

##### 3. Yellow LED: Ice harvest indicator light.

When this LED is lit, the unit is working in the ice harvest mode controlled by ice-full probe .

When green LED and yellow LED is lit, it means the unit is working in the cold preservation stage .

##### 4.Red LED: power indicator light.

The power is on when the red LED is lit.

##### 5. Mode button:

Mainly for service. When this button is pressed, it can change from ice making mode to ice harvest mode, or from ice harvest mode to ice making mode. You can judge the mode from the status of the green and yellow LEDs.

**6. Ice size adjust:** Turn the screw clockwise, and the size of individual ice cubes will be larger in the next cycle; the cycle time will be longer. Turn the screw counter clockwise, and the ice size will be smaller in the next cycle.

*NOTE: It is not a good idea to adjust the ice size often or for no good reason, because the controller may damaged.*

#### IMPORTANT

##### \*1. Avoid water to the controller box.

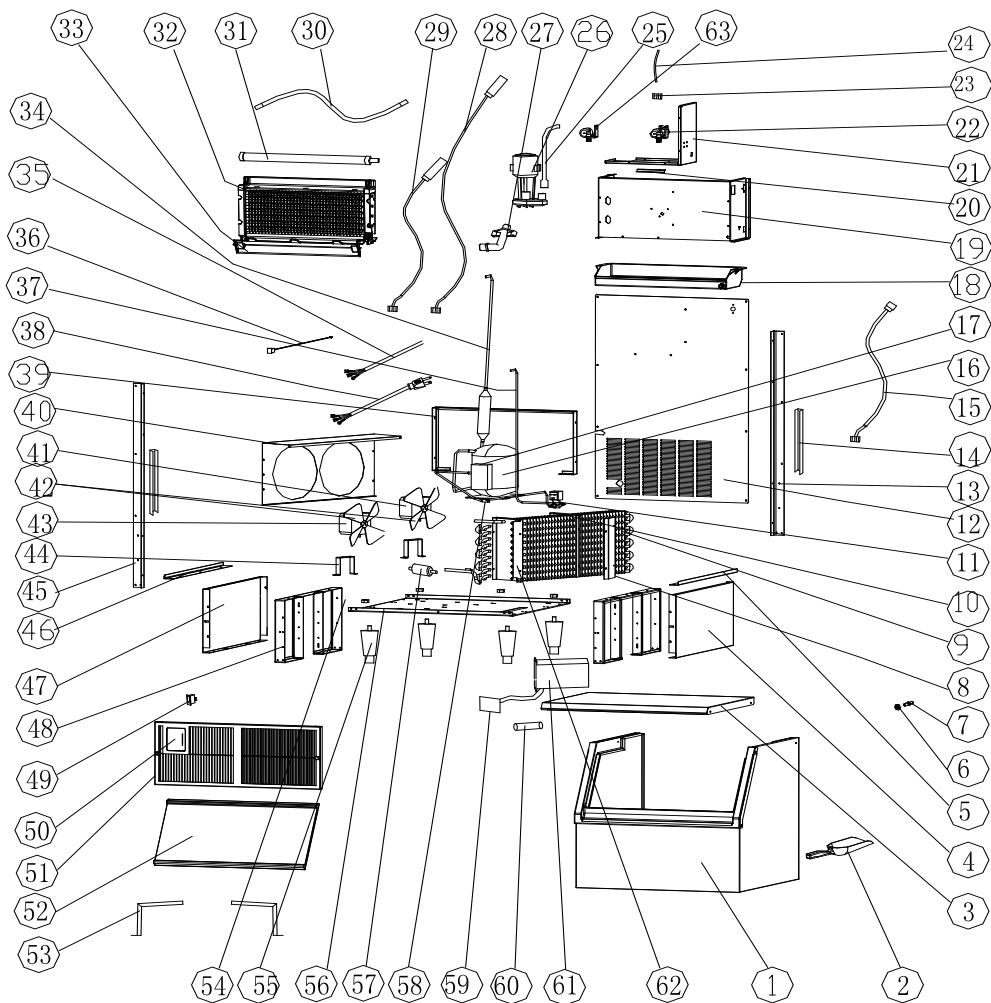
\*2. To start the Clean Status the power switch must be on. The CLEAN switch must be turned in 3 minutes before the COMPRESSOR starts.

\*3. When turn the machine “ON” at the Power switch, the compressor, motor fan and pump will be delayed 3 minutes to power on to protect compressor. At this moment, the **Red, Green, Yellow and White** LEDs are light together.

## MAJOR FUNCTIONS OF CONTROLLER

1. Completely automatic operating procedure.
2. When the ice storage bin is full of ice cubes, the machine stops making ice and turn into cold preservation stage automatically and starts making ice again after the ice cubes are removed.
3. The different colors of the LED display indicate various work modes.
4. The fan motor responds to the ambient temperature. If it is cold, the motor will stop working to keep the cooling system in good working condition.
5. The thickness of ice cubes is adjustable.
6. A sensitive probe and accurate timer enhance the performance of the ice maker.
7. Built-in compressor protection system.

## Exploding Drawing

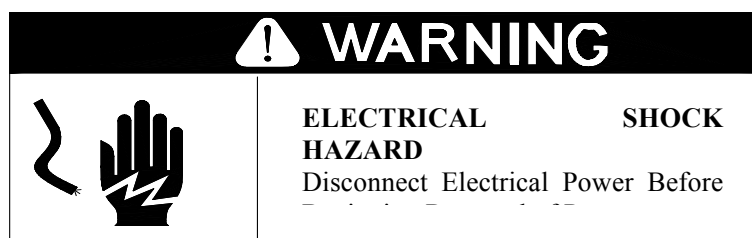


### Spare parts list of IM-2842

| ITEM NO | CODE       | DESCRIPTION                          |
|---------|------------|--------------------------------------|
| 1       | 1864701602 | ice storage bin                      |
| 2       | 1864800100 | Ice scoop                            |
| 3       | 1860106304 | top panel                            |
| 4       | 1860110803 | down right panel                     |
| 5       | 1860410602 | right slide way                      |
| 6       | 1864514100 | Drain nut                            |
| 7       | 1864536200 | Drain connector                      |
| 8       | 1860004907 | right cover wind panel               |
| 9       | 1858420900 | condenser                            |
| 10      | 1854701210 | Hot gas valve body (EVU3)            |
| 11      | 1854701800 | Hot gas valve coil (042N4212)        |
| 12      | 1860007701 | back panel                           |
| 13      | 1860111106 | right back support                   |
| 14      | 1860604901 | little support                       |
| 15      | 1811306100 | Water supply pipe                    |
| 16      | 1858420900 | Compressor                           |
| 17      | 1858441300 | compressor starting device component |
| 18      | 1864802002 | water trough                         |
| 19      | 1858201708 | evaporator support                   |
| 20      | 1858201800 | water trough support                 |
| 21      | 1860601804 | water pump support                   |
| 22      | 1880001701 | Floater valve                        |
| 23      | 1864529100 | water inlet pipe screw               |
| 24      | 1811206006 | water inlet pipe                     |
| 25      | 1811330102 | Water out tube of pump               |
| 26      | 1858904400 | Water pump                           |
| 27      | 1864526301 | Water inlet                          |
| 28      | 1851700802 | Temperature sensor of condenser      |
| 29      | 1851700200 | Temperature sensor of evaporator     |
| 30      | 1864532702 | Water drain pipe                     |
| 31      | 1864550602 | water sprinkler                      |
| 32      | 1880024700 | Evaporator (Ice Mold)                |
| 33      | 1861701802 | Ice full probe                       |
| 34      | 1880020202 | suction pipe                         |
| 35      | 1853701905 | Wiring harness                       |
| 36      | 1854005700 | Magnetism switch                     |
| 37      | 1861501701 | discharge pipe                       |
| 38      | 1853110500 | Power supply line                    |

|    |            |                                      |
|----|------------|--------------------------------------|
| 39 | 1860601507 | back support                         |
| 40 | 1860004804 | fan motor cover                      |
| 41 | 1858200601 | Motor 5W                             |
| 42 | 549738100  | Fan blade ( $\Phi$ 200X28° )         |
| 43 | 1858201300 | Motor10W                             |
| 44 | 1860508201 | fan motor bracket                    |
| 45 | 1860111204 | left back support                    |
| 46 | 1860410502 | left silde way                       |
| 47 | 1860110704 | down left panel                      |
| 48 | 1860601609 | left support                         |
| 49 | 1854000500 | Power switch                         |
| 50 | 1864901700 | operator buttom cover                |
| 51 | 1860600805 | under louver                         |
| 52 | 1864806902 | door                                 |
| 53 | 1860111700 | stability support                    |
| 54 | 1803200100 | locked screw                         |
| 55 | 1880014901 | foot                                 |
| 56 | 1860604614 | compressor base                      |
| 57 | 1880008201 | Drier                                |
| 58 | 1861530100 | T shape three ways                   |
| 59 | 1860617100 | control panel of FIM200 control box) |
| 60 | 1854800300 | 15A fuse of control box              |
| 61 | 1854205900 | Control box                          |
| 62 | 1880013104 | Condenser                            |

## Troubleshooting



### Before Maintenance

1. Check out the user if the user uses a 115 VAC, 60Hz. only 15ampere electrical supply, and have properly grounded, ensure the maintainer against electrical shock.
2. Check out the leads loose? Turn off? Short circuit? If have such problems, foreclose in turn.

### Basic Checking

The icemaker has some trouble, through the appearance phenomena judges. So the service technician must check it thoroughly, then maintain.

#### Hearing

- Hearing the user 's depiction about the icemaker at using process and the phenomena. Try to understand what is the defect and how did the user operate the icemaker before calling for service.
- If the running sound is normal?

#### Looking

- Check the pipe of cooling system, especially the welding point. If there is some oil, the gas is leak out so that no ice making or less ice produced.
- If the cycle of the ice making and harvest is normal?
- Check the water system, especially the connection. If there is some water leakage.
- Check if the water filter needs to be replaced.
- Check if the icemaker installed according to the user manual.
- Check if the icemaker needs to be cleaned.

#### Touching

- Touch the hot gas pipe (with the evaporation weld), feeling the temperature. At the ice making stage, feeling cool. At the ice harvest stage, feeling hot.
- Touch the capillary tube (the drier nearby), feeling tepefaction.

## Troubleshooting Guide

This troubleshooting guide in the user manual should be read before this guide. Be sure only when the trouble shooting in user manual can't help you solve the problem, turn to this guide.

### Troubleshooting Guide

#### 1.The machine does not make ice

| Problem kinds                    | Check part or point | Possible Cause                                                | Probable Correction                                                                                                 |
|----------------------------------|---------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>The machine don't operate</b> | Plug                | The icemaker is unplugged.                                    | Plug the icemaker in.                                                                                               |
|                                  | Socket              | Socket is damaged                                             | Check and replace                                                                                                   |
|                                  | Power switch        | The icemaker power switch turns to OFF.                       | Turn the icemaker power switch to ICE.                                                                              |
|                                  | Fuse                | The fuse is blown.                                            | Replace fuse.                                                                                                       |
|                                  | Wiring connection   | Some wiring connection is incorrect or loosed                 | Check and re-connect                                                                                                |
|                                  | Voltage             | The voltage of the power supply is low.                       | Add manostat.                                                                                                       |
|                                  | Ice full probe      | The ice full probe is out of function.                        | Replace a new one.                                                                                                  |
|                                  | Ice full probe      | The ice full probe is covered by something                    | Clear the probe and make the ice-full probe is free.                                                                |
|                                  | wiring              | Some wiring is damaged                                        | Replace a new one                                                                                                   |
|                                  | Electric component  | Some electric component fail                                  | Find the controller, press the mode button to change the mode. It is helpful to judge which part is out of function |
|                                  | Control box         | The control box fail                                          | Replace a new one                                                                                                   |
| <b>Water System</b>              | Water supply tap    | The water supply tap is turn off.                             | Turn on the water supply tap.                                                                                       |
|                                  | Water supply pipe   | The water supply pipe is not proper connected or maybe kinked | Reconnect the water supply pipe.                                                                                    |
|                                  | Water line          | Some water line leaks.                                        | Plug into again.                                                                                                    |
|                                  |                     | The water line blocks                                         | Clean it, see user and care manual "ice making system cleaning"                                                     |
|                                  |                     | Water supply pressure is lower.                               | Adjust the water supply pressure within the range of stated range.                                                  |
|                                  | Water inlet         | Water inlet blocks                                            | Check and clear it                                                                                                  |
|                                  | Water dump valve    | Water dump valve leaks,                                       | Replace the water dump valve                                                                                        |
|                                  | Water pump          | Water pump damages                                            | Replace water pump.                                                                                                 |
|                                  |                     | The lines of the water pump loose.                            | Plug into again                                                                                                     |
|                                  |                     | The housing of water pump leaks.                              | Replace water pump.                                                                                                 |

| Problem kinds         | Check part or point             | Possible Cause | Probable Correction                                       |
|-----------------------|---------------------------------|----------------|-----------------------------------------------------------|
| <b>The compressor</b> | Wiring connects                 | loose.         | Plug tightly, or replace.                                 |
|                       | The start relay/thermal protect | Be damaged.    | Replace the start relay/thermal protect of the compressor |
|                       | The startup                     | Be turnoff.    | Replace the compressor.                                   |

|                                         |                            |                                                                      |                                                                                                                                   |
|-----------------------------------------|----------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>doesn't start or start frequency</b> | coil / running coil        | Be turnoff.                                                          | Replace the compressor.                                                                                                           |
|                                         |                            | The motor of the compressor is short circuit.                        | Replace the compressor.                                                                                                           |
|                                         | Condenser                  | The condenser may be dirty.                                          | Clean the condenser.                                                                                                              |
|                                         | Fan                        | The fan may be dirty or damaged                                      | Clean or Replace the fan .                                                                                                        |
|                                         | The Electronic control box | The control box is damaged                                           | Replace the Electronic control box.                                                                                               |
| <b>The compressor run but no ice</b>    | Refrigerant                | Refrigerant leaks completely                                         | Add low side access valve, locate leak, recover refrigerant, replace drier, evacuate and weigh in the data plate charge.          |
|                                         | Capillary tube             | Capillary tube is blocked                                            | Add low side access valve, recover refrigerant, replace hot gas valve, replace drier, evacuate and weigh in the nameplate charge. |
|                                         | Vent                       | The vent is obstructed around the ice machine                        | Clean the vent                                                                                                                    |
|                                         | Hot gas valve              | Hot gas valve damaged                                                | Replace                                                                                                                           |
|                                         | The Electronic control box | The model of making ice doesn't turn to harvest.                     | Replace the Electronic control box.                                                                                               |
|                                         |                            | Tthe unit is working in the cold preservation stage mode controlled. | Work in normal mode                                                                                                               |

## 2.Low production

| <b>Problem kinds</b>  | <b>Check part or point</b> | <b>Possible Cause</b>                                         | <b>Probable Correction</b>                            |
|-----------------------|----------------------------|---------------------------------------------------------------|-------------------------------------------------------|
| <b>Cooling System</b> | Refrigerant                | Refrigerant leaks partially                                   | Recharge.                                             |
|                       | Condenser                  | The condenser may be dirty.                                   | Clean the condenser.                                  |
|                       | The ambient temperature    | The ambient temperature is high or too low                    | Check the ambient and air flow                        |
|                       | Fan                        | The fan is dirty or damaged                                   | Clean or repalce                                      |
|                       | Hot gas valve              | Hot gas valve performance poor, leads to few ice is produced. | Replace the hot gas valve                             |
|                       | Electronic control box     | The setting temperature of Electronic control box is low.     | See the service manual "adjust the size of ice cubes" |
|                       | Sensor                     | The sensor of temperature damages                             | Replace the sensor of temperature.                    |

|                     |                         |                                                      |                                                                       |
|---------------------|-------------------------|------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Water System</b> | Water distribution tube | The water distribution tube blocks                   | Clean the water distribution tube                                     |
|                     | Water line              | The water quality is too poor. The water line blocks | Using a filter apparatus installed in front of the water inlet valve. |
|                     | Silica gel tubes        | The silica gel tubes distort, lead to block.         | Make the silica gel tubes resile                                      |
|                     | Water dump valve        | The water dump valve bad, the water leaks            | Replace the water dump valve                                          |
|                     | Floater valve           | The floater valve leaks. Lead to few ice produced.   | Repair or replace                                                     |

### 3. Ice Cube is not OK

| <b>Problem kinds</b>                                                            | <b>Check part or point</b>        | <b>Possible Cause</b>                                     | <b>Probable Correction</b>                                                           |
|---------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Cubes are too small</b>                                                      | Condenser                         | The condenser is dirty or the air grills are covered      | Clean the condenser. Leave space around the machine                                  |
|                                                                                 | The ambient temperature           | The ambient temperature is too high.                      | Adjust the ambient temperature.                                                      |
|                                                                                 | Electronic control box            | The setting temperature is high.                          | See the service manual "adjust the size of ice cubes"                                |
|                                                                                 | Refrigerant                       | Refrigerant leaks                                         | Recharge.                                                                            |
| <b>Cubes are too big</b>                                                        | Electronic control box            | The setting temperature of Electronic control box is low. | See the service manual "adjust the size of ice cubes"                                |
|                                                                                 | Sensor                            | Temperature sensor of the evaporator damages              | Replace the sensor of temperature.                                                   |
|                                                                                 | The ambient and water temperature | The ambient temperature and water temperature is too low. | Adjust the temperature.                                                              |
| <b>The cubes are partially formed--have ragged sides or white and deformity</b> | Water quality                     | The water quality is poor                                 | Using a water-soften / filter apparatus installed in front of the water inlet valve. |
|                                                                                 | Evaporator                        | Ice machine is dirty                                      | Clean and sanitize the ice machine                                                   |
|                                                                                 | Water distribution tube           | The water distribution tube blocks partially              | Clean the water distribution tube                                                    |
|                                                                                 | The water pump                    | The water pump is dirty                                   | Clean the water pump inside                                                          |
|                                                                                 | The water lack                    | The water floater is bad                                  | Replace the water floater                                                            |
|                                                                                 | Water trough                      | Water trough level is too low                             | Adjust the water floater                                                             |

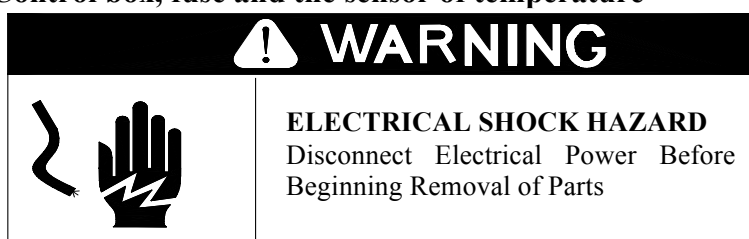
#### 4.Other problems

| Problem kinds                                     | Check part or point               | Possible Cause                                                                              | Probable Correction                                                                               |
|---------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>The body is electrified</b>                    | Earth line                        | The earth line isn't in the socket.                                                         | Please use the socket meeting the standard.                                                       |
|                                                   | Lines                             | The lines are creepage.                                                                     | Adjust, reconnect /replace lines                                                                  |
|                                                   | Electric component                | The electric component is creepage,                                                         | Replace this electric component.                                                                  |
| <b>Scales occur frequently inside the machine</b> | the water quality                 | The rigidity of the water quality is too high.                                              | Using a water-soften apparatus installed in front of the water inlet.                             |
| <b>Noise during operation is big</b>              | Spring of the internal compressor | The spring of the internal compressor drops.                                                | Replace the compressor.                                                                           |
|                                                   | Water pump                        | The noise of the water pump                                                                 | Replace the water pump.                                                                           |
|                                                   | Pipeline system                   | Pipeline system resonate                                                                    | Clear pipeline system                                                                             |
|                                                   | Fan motor                         | The fan motor loose, the clearance of the rotor is bigger, the fan blade turns back         | Relocate the fan motor / replace                                                                  |
| <b>Water is leaking out the unit</b>              | The operation                     | A few water drops to the floor when you open the door to take out ice from ice storage bin. | Normal condensation on the door or some water together with ice. Take care when you take out ice. |
|                                                   | Water supply connection           | Water supply connection leaking.                                                            | Tighten fitting.                                                                                  |
|                                                   | Water line                        | Some water line leaks.                                                                      | Plug into again.                                                                                  |
|                                                   | Water drain pipe                  | No water drain pipe or connection leaking                                                   | Replace the water drain pipe                                                                      |
| <b>The water distribution tube doesn't spray</b>  | Lines of the water pump           | The lines of the water pump loose.                                                          | Plug into again                                                                                   |
|                                                   | Water pump                        | Water pump damages                                                                          | Replace water pump.                                                                               |
|                                                   | Water distribution tube           | The water distribution tube blocks                                                          | Clean the water distribution tube                                                                 |
|                                                   | Ice full probe                    | The ice full probe is broken or can not turn back normal position.                          | Repair or replace the probe                                                                       |
| <b>Harvesting ice is difficult</b>                | Hot gas valve                     | The hot gas valve is poor,                                                                  | Replace the hot gas valve                                                                         |
|                                                   |                                   | The hot gas valve damage                                                                    | Replace the hot gas valve                                                                         |
|                                                   | Ice mold of the evaporator        | The ice mold is dirty, or polishing degree is poor.                                         | Clean the ice mold, or replace the evaporator.                                                    |
|                                                   | Refrigerant                       | Refrigerant leaks                                                                           | Recharge                                                                                          |
|                                                   | Ice machine                       | Ice machine is not proper leveled                                                           | Level the ice machine                                                                             |

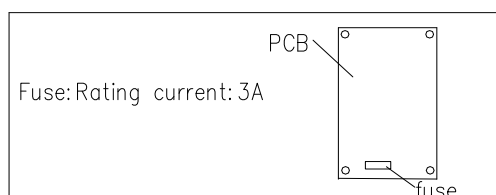
|                                                  |                                   |                                              |                                                                |
|--------------------------------------------------|-----------------------------------|----------------------------------------------|----------------------------------------------------------------|
|                                                  | The ambient and water temperature | The ambient and water temperature is too low | Adjust the temperature.                                        |
|                                                  | Ice cubes size                    | The size is too big.                         | See “the adjust of ice cube size”.                             |
| <b>The evaporator is hot more than 4 minutes</b> | Hot gas valve                     | The lines of the hot gas valve loose.        | Plug into again                                                |
|                                                  |                                   | Hot gas valve performance poor or break      | Replace the coil of hot gas valve if only because of the coil. |
|                                                  | Refrigerant                       | Refrigerant leaks                            | Recharge                                                       |
|                                                  | Electric control box              | The electric control box is wrong            | Check the control box                                          |

## Adjustment and Replacement

### Replace Control box, fuse and the sensor of temperature



- Remove the rear cover, front panel,
- Locate the Electronic control box,
- Pull out the sensors of temperature (one at the evaporator, another at the condenser).
- loosen the screws of rooting the Electronic controller, replace a new one. Reverse the above step to replace.
- If you need replace the fuse, open the front panel of the control box, you will find the figure.



According the figure, take out the fuse, replace a new one.

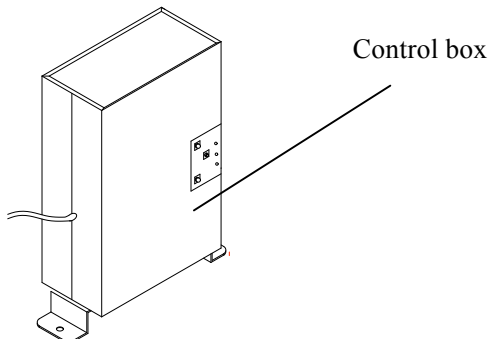
Reverse the above step to reassemble.

- If you need replace the sensors of temperature, pull out the sensor of temperature, open the panel of the controller box, pull out the other side, replace a new one. Reverse the above step to reassemble.

### Adjust the size of ice cube

The cube size should only be adjusted to bring the cubes to the correct shape, the overall size can't be adjusted, Try to adjust the cubes size when the ice maker is work in the Ice Harvest Status.

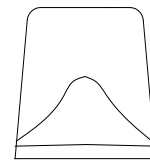
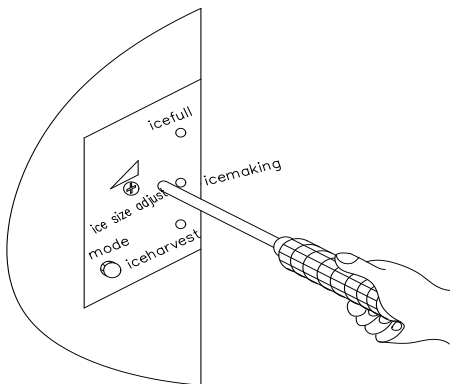
1. Power off the icemaker.
2. Remove the front panel, locate the Electronic control box,
3. Locate the cube size adjustment screw, and to make fuller cubes, turn the screw clockwise about



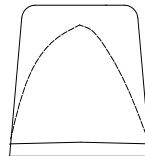
1/36 turn ( $10^{\circ}$  -  $15^{\circ}$  ). This will make the freezing cycle longer.

4. To shorten the freezing cycle and make cubes that are not as full, turn the adjustment screw 1/36 turn ( $10^{\circ}$  -  $15^{\circ}$  ) counter clockwise.

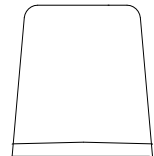
5. After the next freezing cycle, the cubes should have responded to the adjustment, if another adjustment is required, do it early in the freeze cycle.



Correct size



Too big



Too small

## ADVICE

Expert advises the cube size have been adjusted ok before leave factory, had better not adjust it.

### Replace the water system components

Please see the water system drawing. The water leakage should be checked after this kind of operation

# NOTICE

Before replace the water system components, it will be necessary to drain the system of water.

## **Replace the water pump**

- Disconnect electrical power.
- Remove the front cover.
- Unplug the lines connector with the water pump, the water outlet tube of pump.
- Loosen the screws, replace a new one.
- Reverse the above step to reassemble.

## **Replace the Water Dump Valve**

**The water dump valve normally does not require removal for cleaning. To determine if removal is necessary:**

- 1. Locate the water dump valve.**
- 2. Set the toggle switch to ICE.**
- 3. While the ice machine is in the freeze mode, check the dump valve's clear plastic outlet drain hose for leakage.**
  - A. If the dump valve is leaking, remove, disassemble and clean it.**
  - B. If the dump valve is not leaking, do not remove it. Instead, follow the "Ice Machine Cleaning Procedure".**

## **Replace the cooling system components**

Replace the condensing components, See Figure "cooling system"

### **1. Replace the compressor and the compressor kit** (includes relay, thermal protect).

- If only need replace the compressor kit, remove the top panel and left panel, locate the compressor, take the clip, replace the wrong,
- Reverse the above step to reassemble.
- If need replace the compressor, remove the top cover, locate the compressor.
- Unplug the lines and taken out the earth line, open the Process/Suction, evacuate refrigerant, take out the compressor, replace a new one, joint together, then recover refrigerant, weigh in the nameplate charge.
- Reverse the above step to reassemble.

### **2. Replace the fan motor and fan blade.**

- Remove the top and right panel.
- locate the fan motor, unplug the lines connecting with the fan motor, loosen the screws of holding bracket and fan motor bracket, taken out the damaged, replace a new one
- Reverse the above step to reassemble.

### **3. Replace the hot gas valve, drier and evaporator.**

- Remove the top panel.
- Locate the drier and hot gas valve, weld open , ,replace the drier and hot gas valve, weld ,recover refrigerant , evacuate and weigh in the nameplate charge.
- Reverse the above step to reassemble.
- If need replace the evaporator.
- Remove the front and top panel, locate the evaporator, open the process/suction , weld open the two welds, replace a new one. Recover refrigerant, evacuate and weigh in the nameplate charge.
- Reverse the above step to reassemble.